DOCUMENT RESUME

ED 025 567 UD 007 606

The Durham Education Improvement Program, 1965-1966.
Durham Education Improvement Program, N.C.
Spons Agency-Ford Foundation, New York, N.Y.
Pub Date 66
Note-43p.
EDRS Price MF-$0.25 HC-$2.25
Descriptors-*Disadvantaged Groups, *Educational Programs, Infancy, Information Dissemination, Longitudinal Studies, Negro Students, Nongraded Primary System, Nursery Schools, Preschool Education, Research Methodology, Social Services, Summer Programs, Teenagers
Identifiers-Durham, *Education Improvement Program, EIP, North Carolina, Project Infant Evaluation

The establishment of the Education Improvement Program in Durham, North Carolina, is described. The program includes a longitudinal Infant Evaluation Project at Duke Hopsital, a nursery program for two- and three-year olds, an integrated demonstration school, and a preschool for black five-year olds. Also involved are ungraded primaries in two schools, a summer program, and a "Future Parent" program. The brochure describes the research and evaluation aspects, the social work component, and the public information program. For 1966-1967 report of the program see ED 019 170. (NH)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

THE DURHAM EDUCATION IMPROVEMENT PROGRAM 1965•1966

ED 025521

JOINTLY ADMINISTERED BY:

Duke University
North Carolina College
Durham City Schools
Durham County Schools
Operation Breakthrough, Incorporated

COORDINATING COMMITTEE

Everett H. Hopkins, Chairman; Vice President, Duke University
Charles H. Chewning, Sr., Superintendent, Durham County Schools
Robert L. Foust, Director, Operation Breakthrough, Incorporated
Lew W. Hannen, Superintendent, Durham City Schools
Roland H. Nelson, Chairman, Department of Education, Duke University
F. G. Shipman, Chairman, Department of Education, North Carolina College
Robert L. Spaulding, Executive Secretary; Associate Professor of Education, Duke University

OPERATIONS COMMITTEE

Robert L. Spaulding, Director
Donald J. Stedman, Coordinator of Research and Evaluation
James J. Gallagher, Consultant in Program Development
Lloyd Borstelmann, Consultant in Preschool Education
Frank G. Burnett, Principal, W. G. Pearson School
Mrs. Frances Clemons, Principal, Lakeview School
William M. Woody, Principal, Edgemont School
James Weldon, Principal, Southside School

• CENTERED AT 2010 CAMPUS DRIVE, DURHAM, N. C.

PHOTO CREDITS

• Nursery and Information by William Oursler
• All others by Billy Barnes, of the North Carolina Fund

ED025567

A Project of
the
Ford Foundation

DR. ROBERT L. SPAULDING

From the Director's Desk

Public education in America has evolved over the past century and one half from an institution designed to provide a minimal level of competence in reading, writing, and simple figuring—which was felt necessary to support the development of a democratic society—to a comprehensive system of publicly supported institutions designed to provide *equal access for all* America's children to the full benefits of citizenship. As originally developed, the public schools were organized to sort out the dull and continue in school the more successful. The less able were allowed to leave school to work on family farms or businesses, or find outside employment as laborers.

As America has become industrialized it has become increasingly necessary to provide a successful elementary educational experience for everyone. The society resulting from industrialization and automation has eliminated a great many jobs which did not require an elementary or high school education. The trend is expected to continue. An education through the twelfth grade has become in recent years a necessary prerequisite to full enjoyment of the benefits of citizenship. No longer can our society afford to *push out* children who do not measure up to the academic and social expectations of teachers.

Teachers must now learn to teach *all* children.

No longer can the child or his parents be blamed for his failure. The failure of the child now becomes the failure of the teacher—and the community—to serve the child. The school, to serve all children, must give up its role as a system of sorting out the superior and denying opportunities to the remainder. The school must now develop new techniques and materials, bolster the self-esteem of all children, help them establish a role in society and be sufficiently reimbursed to support themselves and look forward to the establishment of family life.

This does not mean that the public school should neglect the talented or precocious. It is possible (as demonstrated in many public schools) to provide an educational fare which fosters the development of *all* children at varying rates and at various levels of academic performance. These newer methods place a greater responsibility upon the teacher to develop in each child a measure of self direction and control. The teacher can no longer assume full control over each child's daily encounter with subject matter. Instead children must be led to assume a greater portion of responsibility for their own behavior and education. This is not an abdication of responsibility by the teacher, but a demand that she exercise her authority in a more effective way. Since pedagogical research has begun to find ways to permit all children to learn regardless of the disadvantages brought about by the accident of birth, we can no longer afford to make use of teaching techniques ill-suited to the disadvantaged.

In March 1965, the Ford Foundation funded a proposal forwarded by Duke University to develop a comprehensive program of educational intervention in the lives of disadvantaged children. Linked in this proposal were Duke University, North Carolina College, the City and County schools, and the local anti-poverty agency (Operation Breakthrough).

The proposal, as accepted by the Foundation, outlined programs for children at most ages from birth through adolescence. Three target areas, earlier designated by Operation Breakthrough as sites of most distressing poverty, were selected for educational intervention. Pro-

grams were planned for infants, toddlers, pre-schoolers, and primary grade children. Youngsters in early adolescence were to be enrolled in the pilot program leading to more stable family life and effective parenthood.

Not only were plans made to utilize and demonstrate existing knowledge regarding effective educational intervention, but a concerted effort was projected to discover and demonstrate more efficient and effective ways of assisting children to escape the debilitating effects of poverty and other forms of environmental disadvantage. The research phase of the Durham EIP is, therefore, a major component of the overall effort.

June, 1966, marks the completion of the first year of the five-year funding. It has been a year devoted to locating a competent staff and adequate facilities to house various projected programs. During the first year a number of assumptions regarding the nature of Durham's disadvantaged children and the best way to serve them were examined. The literature was searched and a commitment regarding experimental treatments was made. Thus, at the close of the first project year, we can report in substantive detail our exploratory studies, hypotheses, projected treatments, intended demonstration programs, staffing, and in-service training.

The Durham EIP intends to discover the means to make it possible for socially and economically disadvantaged children to respond successfully to the demands made upon them by the public schools. Not only does EIP undertake to improve the intellectual performance of these children but their social skills and their ability to cope with adult authorities.

Children from poverty suffer a variety of insults which all too often result in apathetic and self-demeaning attitudes. Programs designed by EIP are structured to enhance self-esteem and permit each child to derive self-control and a measure of productive autonomy. It is a definite goal of EIP to promote responsible, cooperative independence by means of carefully designed classroom socialization procedures. Through developing internal controls and the opportunity to experience respect from others, poverty children can gain self-respect.

Empirical studies during the first year of the project have resulted in a number of tentative assumptions which remain to be supported (or rejected) by further investigation over the course of the next four years. These, in effect, stand as hypotheses which have suggested the treatments undertaken by the staff.

Durham's disadvantaged are, first of all, believed to be normal in their ability to respond to their environment. They have learned to cope with crowded living conditions, tired and impatient adults, inadequate food and clothing, hostile strangers, an abundance of siblings and neighborhood youngsters, and the insults of disease and family disorganization. Their responses permit them to survive within poverty but not to escape it. They learn to avoid adults, conforming only when necessary to obtain food or escape punishment, and find satisfaction either in street, yard, and neighborhood encounters with peers or siblings or in quiet withdrawal. Thus, when placed in an unfamiliar school situation, they first withdraw and then the more adventuresome seek to stimulate each other. They tend to avoid tasks at which they have failed as well as interaction with adults. As classroom adults either punish or withhold aversive stimulation these children correspondingly withdraw or seek out each other, often in a hyperactive manner.

The hierarchy of behaviors learned in the street, neighborhood, and crowded home are ill-suited to usual classroom procedures. The Durham disadvantaged child is particularly unprepared to listen to adults who explain, show, demonstrate, and otherwise attempt to help him learn specific skills or comprehend an involved idea. His disadvantage, however, is assumed to result from the dis-

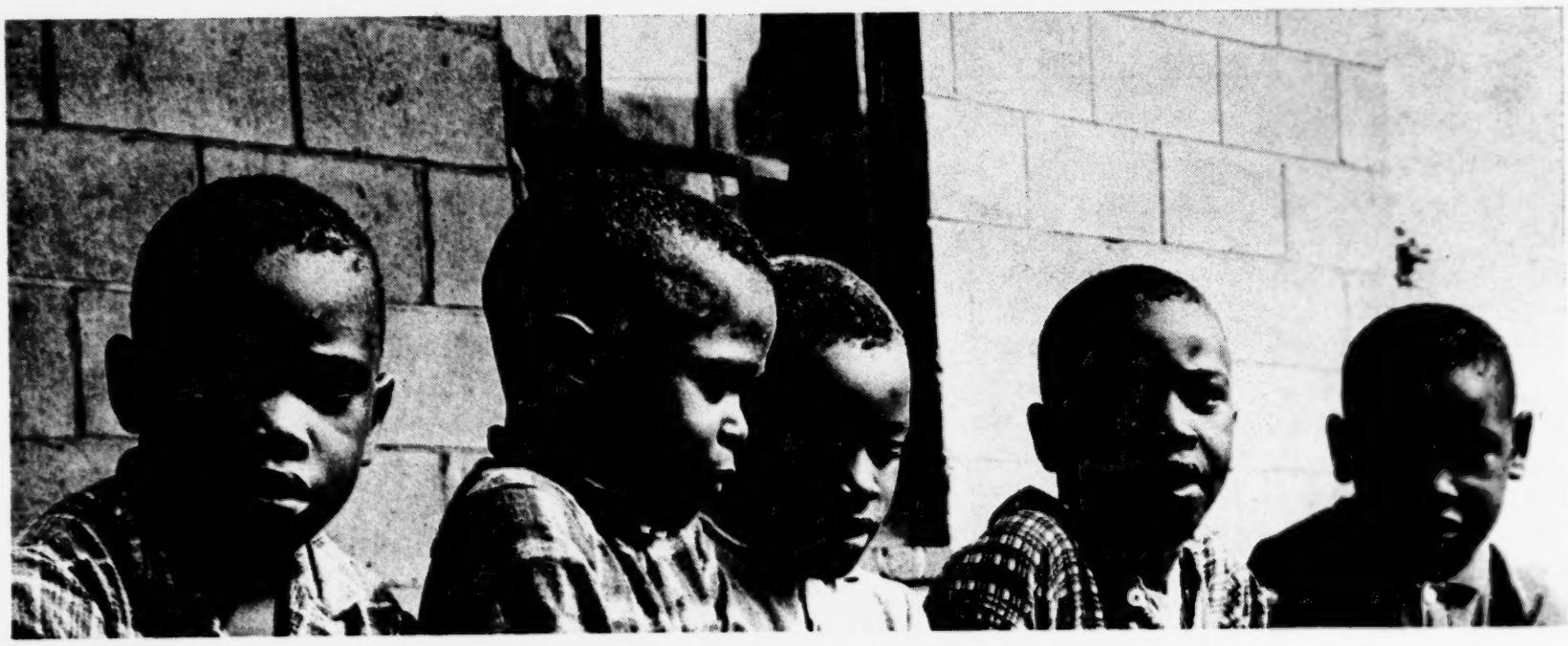
parity of his home environment and that of the school rather than any adaptive malfunctioning.

The Durham child of poverty, in contrast to the child of northern urban slums, appears to be more passive in the presence of authority and less hostile. This observation, if valid, would permit a less authoritarian school environment than is usually constituted to encourage ascendancy and reinforce patterns of responsible independence. With more hostile children it would, in all probability, be more difficult to find suitable ascendant behaviors to reward.

The experience of school personnel in the north in dealing with hostile and anti-social youngsters from the slums leads to speculation on the hazards of permitting poverty to persist in the South. Poverty in Durham continues to exist without the awareness of many since the conditions of those living in poverty are largely unseen. To permit children to live in poverty and to adapt to a society which tolerates such conditions encourages the eventual development of hostility and anti-social behavior. It is the hope of EIP that the promise of democracy, or equal access to the benefits of American citizenship, can be realized more readily with these very young children of Durham since they tend to explore openly when unthreatened and find satisfaction in group relations. Teachers trained in the use of rewards as a means of motivating children can be expected to overcome the disadvantaged child's aversion to adults. Without fear and hostility a child can adapt more readily to adults who encourage his productive explorations and engage him in a continuing examination of ideas.

The Durham child from disadvantaged circumstances is expected to be able to learn two sets of adaptive responses—those appropriate at home and those suitable to school. The reward system of the EIP classes favors self-control and the achievement of social and academic skills. In contrast to a home in which other responses are rewarded, the EIP child is rewarded for listening, thinking, generalizing, cooperating, and controlling his physical behavior. His speech is encouraged and focused by the selective attention of his teachers. Aversive control techniques favored by many teachers, since they usually result (in young children) in immediate passivity, are generally avoided. Only those actions of children likely to lead to serious injury or damage of property will be punished. Since most of the disturbing behavior in the classroom results from the child's use of peer oriented attention-getting techniques, the control methods of EIP teachers will focus on rewards for ignoring the negative attention-getting behavior of others and for cooperative productivity.

In the EIP classrooms the views of social learning theorists are used to derive programs of behavior modification. Thus EIP teachers utilize food and extrinsic reinforcers to increase the desired behaviors of children. Eventual weaning from external reinforcers is accom-



plished by maximizing the opportunities of the children to learn academic skills which are valued in both the school and home cultures—for example, skills of reading and mathematics.

Wherever EIP school expectations derive from widely accepted social forms and find their justification in assisting the educational enterprise, EIP children will be conditioned to respond appropriately by a judicious use of reinforcers. For example, walking quietly in the halls or sitting when requested to do so will be extrinsically rewarded. Whenever, in contrast, the desired behaviors are based upon intellectual characteristics valued by society, the EIP teachers will seek gradually to withdraw external reinforcers and permit each child to discover his own sense of control and competence. Achievement in reading and mathematics can be continued by instructional techniques which permit a child to gain satisfaction through a sense of competence. In addition, he will obtain social reinforcement informally from his classmates and family. By such a pattern of selective reinforcement EIP teachers will encourage the development of internal standards and schedules of reinforcement suitable to continued achievement striving in subsequent years in the public schools without extensive environmental controls.

Since EIP teachers are expected to identify several varieties of child behavior and attend or withhold their attention according to a prearranged treatment schedule, they must be trained to "read" the overt behavior of all the children in their classes. Not only must they be able to identify immediately each type of behavior displayed by a child as he copes with the school setting, but they must be ready to apply reinforcers appropriately to counter peer attention and other competing social forces.

Each child must be known to his EIP teachers in terms of his response history. Separate sets of expectations and reward schedules must be kept in mind by the teachers so each child is encouraged to modify his behavior on the basis of his previous performance record.

In order to bring this about, EIP teachers are trained in classroom behavior analysis and reinforcement procedures. An instrument of classroom behavior analysis (Coping Analysis Schedule for Educational Settings—CASES) has been developed for this purpose. A training film and manual for CASES are currently in preparation. In the coming year classroom research assistants will provide continuous data on each child's classroom behavior and plot the changes that occur. Not only will it be possible to record individual changes in a child's coping with the classroom environment but another instrument under development will permit analyses of reinforcements provided by the social agents encountered by each child. Feedback to teachers each day will provide a check on the treatment schedules planned for each child.

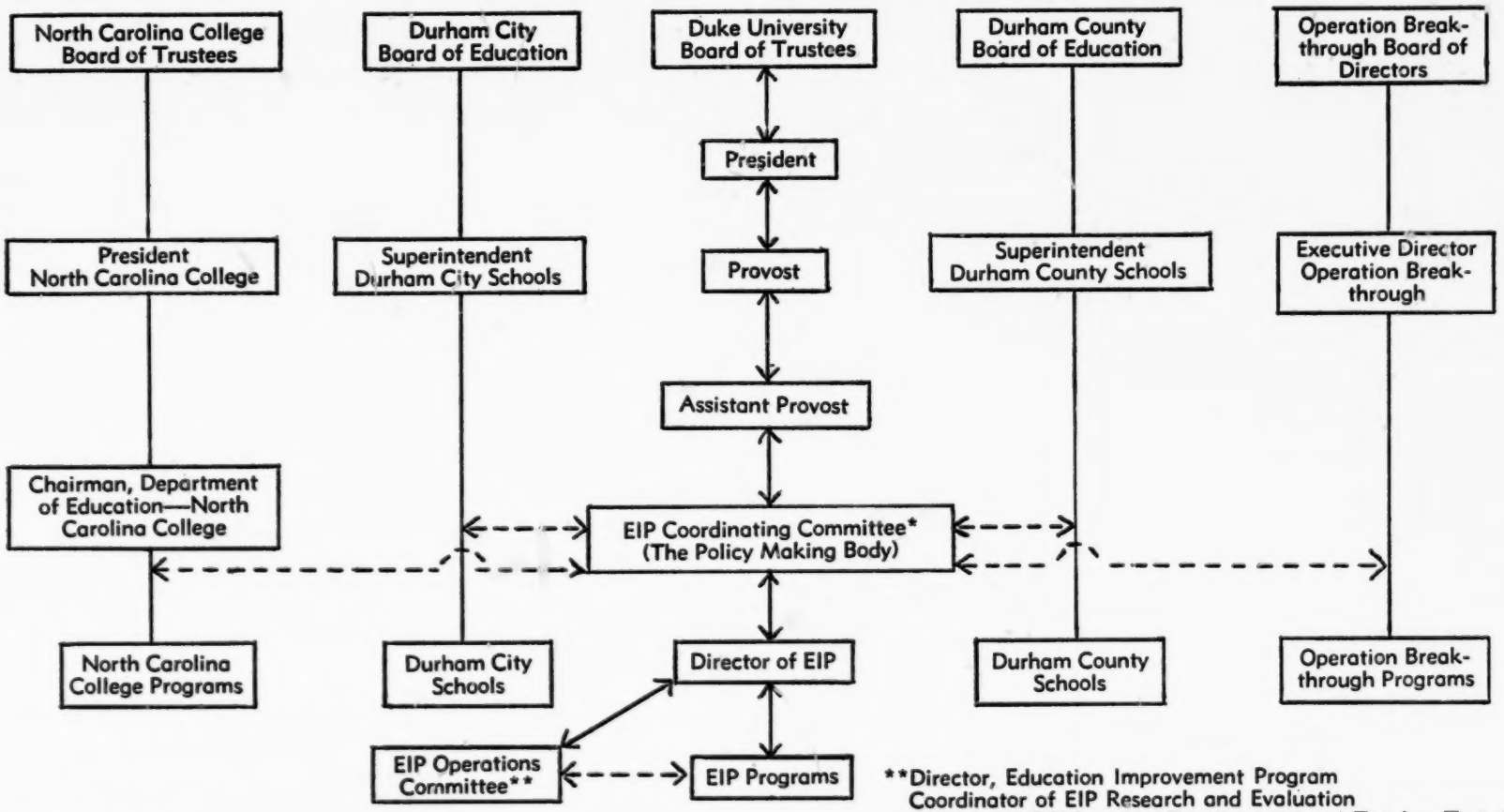
The curriculum presently being structured in EIP classrooms is based upon the assumption that self-control is advantageous in both the social and the cognitive spheres. In EIP classes children are led by the teacher to explore a series of structured, concrete environments which focus on a mastery of motor function and of symbols in English and mathematics. In the cognitive area, the EIP teacher

is expected to utilize all available sources of knowledge as she assists each child to arrive at his own mastery of the subject matter. She is to resist verbalizing generalizations herself and to encourage other children to provide names and possible generalizations for group consideration. Rote learning is specifically avoided by returning to the known when error or guessing is in evidence. Each new conceptual advance is generated from existing knowns and the rates of mastery are governed by the control evidenced in each child.

This method of instruction requires a thorough knowledge of the structure of mathematics and English. EIP teachers are provided ample opportunity to learn these structures from visiting consultants. In addition, specialists in English, mathematics, and science are employed by EIP to assist the teachers in developing articulated sequences for the children to encounter.

Children in the EIP kindergarten are grouped and regrouped for instruction many times during the day and are encouraged to maintain control over their conceptual and social organization. Limits of freedom are set in order to maintain profitable environmental encounters. Children are gradually led to spend a greater and greater portion of time engaged in physical and academic programs designed to maximize their competence. Those who have had EIP nursery or kindergarten experience can be expected to attend to instruction voluntarily and remain in productive activity unsupervised.

Organizational Chart



*Assistant Provost, Duke University, Chairman
Superintendent, Durham County Schools
Superintendent, Durham City Schools
Executive Director, Operation Breakthrough
Chairman, Department of Education, North Carolina College
Chairman, Department of Education, Duke University

**Director, Education Improvement Program
Coordinator of EIP Research and Evaluation
Director of EIP Program Development and Teacher Training
Director of EIP Future Parent Program
Consultant in EIP Program Development
Consultant in EIP Preschool Education
Principal, Edgemont School
Principal, Lakeview School
Principal, Pearson School
Principal, Southside School

E.I.P. Faculty & Staff

Director
Robert L. Spaulding, Ph.D.

INFANT EVALUATION PROJECT

Director
Donald J. Stedman, Ph.D.

Social Workers
Maurine D. LaBarre, M.S.W.
Katrena B. Horton, M.S.W.

Research Assistants
Frank Kern, B.A.
Barbara Kerton, B.S.
Audrey M. Noble, M.S.
Tempa Pickard
Lorette Powell, B.S.
Lee Spence, B.A.

EDUCATIONAL SEQUENCE

Program Director
Nicholas J. Anastasiow, Ph.D.

Program Specialist
James J. Gallagher, Ph.D.

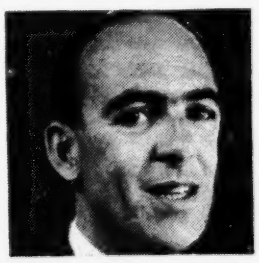
Nursery

Consultant
Marie Hinman, M.S.

Teachers
Page Bowden, B.S.
Carole Joan Hall, B.S.
Sandra J. Pilgrim, B.S.

Preschool

Consultant
Lloyd J. Borstelmann, Ph.D.



Teachers
Martha Campbell, B.S.
Jean Hoppe, B.A.
Barbara Orenstein, B.S.
Aloha Peyton, B.S.
Jean S. Rooks, M.A.T.
Martha P. Schatt, B.A.
Diane S. Turner, B.S.

Ungraded Primary

Teachers
Louisa M. Douglass, M.A.
Linda Finkelstein, B.S.
Cora H. Peaks, B.S.
Marilyn L. Rothbard, B.S.
Carole Woltman, B.S.

Social Work Component
Rosemary Funderburg, M.S.W.
Frederica Harrison, M.S.W.
Paula Wallach, M.S.W.

School Psychologist
Miriam Clifford, M.S.

Language Specialist
Harriet Shenkman, B.A.

Hearing Specialist
Peggy Wiseman, M.S.

Operations Assistant
William P. Freitag, M.A.

FUTURE PARENT PROGRAM

Director
Howard N. Lee, M.S.W.

Counselor
Janet Corpening, B.A.

Homemaker
Nancy T. Bowens, M.A.

RESEARCH AND EVALUATION

Coordinator
Donald J. Stedman, Ph.D.

Psychometrist
Anne Spitznagel, M.A.

Research Assistants
Anne Funderburk, B.A.
Mary McDonald, B.S.
Teresa Ann Martin, B.A.
Janice D. Oursler, B.A.
Paul Scagnelli, B.S.
Patricia G. Webbink, B.A.
Bernice H. Willis, M.A.

Evaluation Assistants
Alan D. Beck, B.A.
Eleanor Nunn, B.S.

INFORMATION

Information Specialist
Joan First, B.A.

Information Assistant
Bonnie R. Powell

ADMINISTRATIVE AND CLERICAL

Administrative Assistant
Mary C. Fendt, B.S.

Administrative Secretary
Dolores W. Clement, B.S.

Secretaries
Judy Atchley, B.A.
Charlie B. Howell
Elizabeth Kennedy (Infant Evaluation)
Katrine P. Little
Mary E. Menge, B.A.
Martha E. Nevils

Clerk-Typists
Frances H. Hope (Operations Office)
Carole A. Leonetti (Information Office)

Office-Clerk
Leevan Williams

Driver
Calvin H. Smith

At Life's Beginning—

The Infant Evaluation Project

The Infant Evaluation Project is an integral part of the total research activity of the Education Improvement Program. It is also:

- A longitudinal study covering 36 babies from birth to 24 months of age. (Equal numbers of babies were selected from three of Durham's poverty areas.)
- A vehicle for the development of techniques of monitoring and measuring infant behavior.
- A program for aiding in the development and standardization of new infant evaluation scales.
- A training ground for child-clinical psychology, education and child psychiatry—as well as pediatric interns, residents and fellows (clinical and research).
- A program for the development of intervention techniques useful in correcting decelerating rates of development.

The Infant Evaluation Project provides a period of close observation and evaluation of infants destined for placement in the EIP nursery or preschool, and forms a keystone program for the development of studies observing and evaluating high risk infant populations in conjunction with the Child Development Research Group of the Center for the Study of Aging and Human Development at Duke University.

Under the supervision of the EIP Coordinator of Research and Evaluation, the Infant Evaluation Project Coordinator develops and regulates activities of the longitudinal, special research, and clinical studies. The Project Team consists of the following: a pediatrician, a pediatric neurologist, a child psychiatrist, an experimental psychologist, two psychiatric social workers, four research assistants for infant evaluation, a speech and hearing consultant, a pediatric nurse, and administrative supports.

Additional clinical-consultative support is available through the Developmental Evaluation Clinic in the Department of Pediatrics. This clinic provides neurologic, physical therapy, and laboratory personnel for clinical services, in addition to those of the Pediatric Out-Patient Clinic.

In the past, studies focusing on developmental factors have followed a traditional longitudinal design, a cross-sectional design, or a combination of both. The Infant Project provides basic data on a number of EIP children whose later personality, intellectual, and educational development will be closely observed and correlated with early development and behavior. The short term, intensive longitudinal study will be followed by a cross-sectional comparison with EIP and non-EIP children. Close attention will be given to growth and learning skills within each child.

The longitudinal study began in September, 1965. Three dozen babies (20 boys and 16 girls) have been recruited. Each will experience a series of nine evaluations spread over a 24-month period. Each will also receive pediatric well-baby care at the Duke Medical Center.

Systematic evaluation of these infants using the Bayley Scale of Mental and Motor Development (as well as anthropometric measures) affords a monitoring system which, when coupled with family and social data, will provide thorough developmental and behavioral documentation for EIP nursery placement.

Five major criteria were used in recruiting infants. They are as follows:

1. All babies had to be born at Duke Hospital. (This insured availability of medical records for both mother and newborn infant, as well as standard obstetric and pediatric data.)

2. All families had to reside in one of Durham's designated poverty areas, or in the Crest or Southside School areas where many families live on or below the poverty line.

3. All families had to be "intact." That is, both mother and father had to be in the home and plan to remain in the community.

4. All had to be classified as "normal" infants as the result of the new-born nursery pediatric examination. (Excluded were markedly premature infants, those diagnosed as cynotic, flaccid, mongoloid, hydrocephelic, or otherwise aberrant.)

5. All mothers had to be willing and able to bring the baby to the Medical Center for nine evaluations during the ensuing two years.

The senior social worker devised plans for liaison with medical, nursing, and clerical staffs of Obstetrics and Pediatrics, for selection of infants meeting the first four recruitment criteria, for home visits, and recording of socio-economic and child-rearing data.

Staff social workers made home visits to each of the families selected, to explain the Project to the mother, ascertain her interest and ability to participate, and to gather family data. (Additional home visits are made before the third and sixth month evaluations to sustain the mother's motivation and gather information about changes in the family situation and the infant's development.)

The following benefits were offered the mother as motivational devices:

1. A free clinic card covering the cost of Pediatric Clinic registration, well-baby examinations, and immunization.

2. An opportunity to be met at the hospital door and taken immediately to the evaluation room, thus eliminating the usual long clinic wait and protecting the infant from fatigue and sound-saturation.

3. The mother's choice of two Polaroid photos taken at the end of the evaluation session. (The remaining photo goes into the infant's file.)

Infant Project social workers maintain close liaison with the EIP school social work component and with Public Health nurses and community and social agencies. This contact facilitates referral and consultation. (In some instances, a sibling of an Infant Project baby is enrolled in EIP classes, or is eligible for recruitment. Such situations require joint planning between the two social work components.)

As may be expected from this sample of relatively stable families, parents have evidenced interest in health care for their youngsters. The mothers' genuine interest in their babies, their trust and high regard for Duke Hospital, and their personal satisfaction in contributing to a study of "how babies grow" have been significant motivational factors.

Secondary gains for the mothers include the individualized attention, interest, and support they gain as "special" members of the project.

The criteria have yielded a group of families who are, generally speaking, hard working, self-supporting, and self-respecting. The families appear to be stable and well-organized. There is a strong interest in children and a demonstrated ability to function adequately in spite of very low income.

Many of the fathers are limited to unskilled occupations and minimum wages of $50 per week. This is true even of high school graduates with steady work histories. In a few cases, the father has a semi-skilled job or sufficient seniority to earn $60-$65 per week. Even those families fall below the $3,000 per year poverty line. These men provide minimal necessities by holding second jobs, and the mother returns to work when the child is from one to three months of age.

In six cases (three white and three Negro families), the mother does not plan to work because the father believes she should remain in the home. In two other instances, the mother secured a domestic position enabling

her to keep the baby with her during the working day.

In a few cases, a grandmother or aunt cares for the baby while the mother works, insuring some continuity of care. Usually the mother has to rely upon a succession of hired baby sitters, whose care and interest in the child's development are uncertain and inconsistent. It is hypothesized that a highly significant factor in the infant's development during the critical first two years is the steadiness of the mother image, upon which basic trust, ego identification and consistent stimulation, response and socialization are dependent. This factor will be evaluated in the research data about the infant's family.

A variation of $10-$25 per week in the income of low income families makes a tremendous difference in the ability of the family to provide minimum standards of nutrition and health care. Also highly significant is the ability of the parents to manage economically and effectively. We are impressed with the ability of many of these families to maintain clean, orderly homes, to obtain health services from the Public Health Department and well-baby clinics, to use secondhand clothing, and to budget the most necessary items.

Most of the Project families have no serious health problems, but are ill-prepared to meet any emergency involving illness or accident.

Another pertinent factor relating to family stability is the stability of families of origin. Data has been obtained citing steady work histories, lengthy church membership, unbroken marriages, and long residence in the same area as the kinship group—all bearing out the initial evaluation of stability in the research population.

These same factors also differentiate the Infant Project families from so-called "multiple-problem" families, many of which are characterized by family disorganization, long histories of ill health, irregular employment, discouragement, and inadequate family functioning.

Most Project families are relatively young, with five or less children. The families with more children, living in dire poverty, were not able to promise

to bring their babies for the required number of evaluations.

During July and August, 1965, three infant evaluators were trained in the administration of the Bayley Scales and the Project began in September with experienced hands.

A great deal of data has been gathered on the infants themselves. Twelve have been evaluated four times at one, two, three, and six months of age. Eleven have completed their third evaluation at three months. Five are at the two-month level. Six have completed their first evaluation at one month. Two have been recruited but, as yet, not evaluated. Summaries of the mental age, motor age, full length and weight data are provided on page 13.

The development of techniques within EIP for monitoring and measuring infant behavior has proceeded at a pace. Systematic studies of visual, auditory, and tactual stimulation of infants have begun with measurement of vocal and motor (activity) responses and observation of behavior changes being the predominant data collected.

Videotape recording instrumentation, the development of an experimental crib, and new theoretical notions arising from pilot studies have already demonstrated the general and specific values of the Project.

The Project provides the framework for assisting the Psychological Corporation in the standardization of the Bayley Scales for publication in 1966. Longitudinal study infants are not standardization subjects. Other infants in the Duke Well-Baby Clinic are evaluated by Project personnel for this purpose.

Project planning includes the development of infant developmental sequences following the theoretical and descriptive framework of Jean Piaget, the psycholinguistic model of Kirk and McCarthy, and the notions of sensory integration developed by Birch and others. The activities of special studies and scale development are most affected by the work and thought of Piaget, Bayley, Hunt, Birch, and Lewin.

The Project Director conducted a training program for the infant evaluators for a two month period prior to the first testing of research infants. This training included reading, discussions, observations of demonstration evaluations, and numerous training experiences in evaluating infants of various ages.

Team conferences were held before and after each evaluation session. The social worker presented a briefing on the family situation and the health records of mother and infant. After the testing, the team members discussed their observations and judgments of each item on the Bayley Scale, interpretations of the manual definitions and directions, criteria for scoring items requiring subjective judgment, and comparisons of their infant's performance with his previous record and with those of other infants. The social worker raised questions pertinent to observation of the mother-infant interactions and the reactions of the mother to the testing situation.

This process of team discussion improved the consistency and accuracy of testing skills both for individual evaluators and for the Project group.

Additional training enrichment was provided by "retreats" for EIP staff,

lectures sponsored by EIP and the Psychology and Psychiatry Departments at Duke University, conferences with visiting consultants, and attendance at various professional conferences in other localities.

The Pediatric Child Psychiatry training program in the Duke University Medical Center utilizes the longitudinal and special studies for both clinical and research training of Pediatric, Child Psychiatry, Child Psychology, Nursing, Special Education, and Social Work trainees, interns, residents, and fellows. Few programs provide such a population of normal infants and families for study and observation.

The development and application of intervening-correcting programs on human infants with slowing development is neither simple nor lightly considered. There is sufficient animal and human research data that caution against over, as well as under, stimulation and for this reason intervention programs need exceedingly close scrutiny and discriminative use.

No intervention techniques are, as yet, being employed in the Infant Project. When sufficient baseline data, measuring, monitoring capabilities, and outcome controls are available, treatment techniques will be employed in highly controlled individual experimentation.

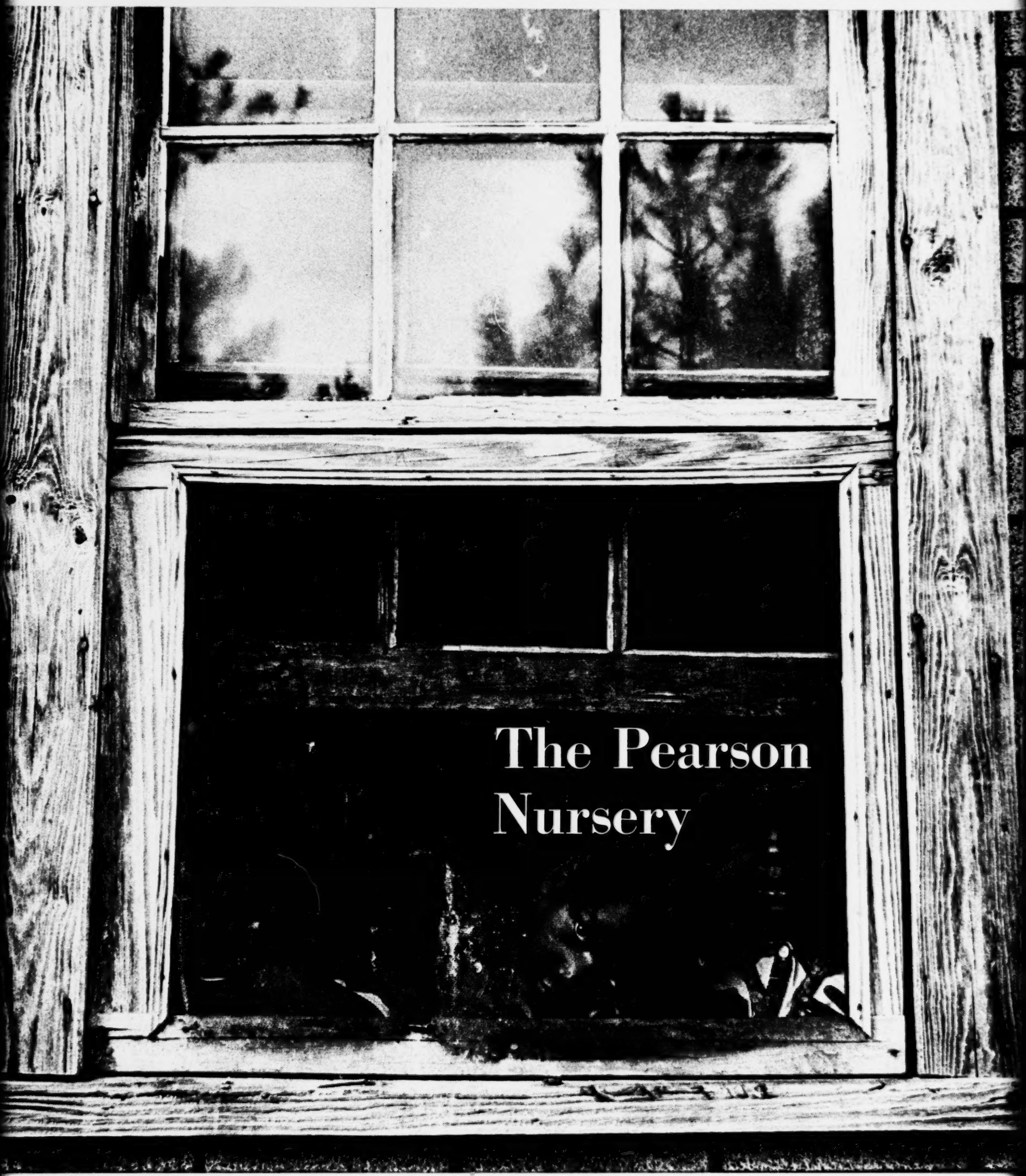
MEAN DATA ON 36 INFANT PROJECT FAMILIES

RACE		PARENT AGE		OCCUPATIONAL RATING*		EDUC. LEVEL		NEIGHBORHOOD RATING	HOME CONDITION	
N	W	F	M	F	M	F	M	Rating**	Rating**	# Rooms
32	4	29	25	3.4	3.6	9.9	10.6	3.14	3.47	3.47

*Warner Scale
**EIP 5 point scale (1 = very good, 5 = very poor)

SIX MONTH EVALUATION DATA ΘN 36 INFANTS IN EDUCATION IMPROVEMENT PROGRAM INFANT PROJECT
(Mean Data)

	BIRTH	1 MO.	2 MOS.	3 MOS.	6 MOS.
Number of Infants	36	34	28	23	12
Weight (lbs.-oz.)	6#7.9 oz.	8#6.8 oz.	10#7.5 oz.	12#6.5 oz.	17#8.7 oz.
Length (cm.)	48.75	51.41	55.22	58.30	65.87
Mental Age (mos.)	——	1.12	2.50	3.34	6.13
Motor Age (mos.)	——	1.24	2.50	3.07	6.17


The Pearson
Nursery

An old man and a child share a single, shabby room. The old man seldom rises from his bed. The child sits at the window, drawn to the room's only source of light. She spends each day with her grandfather while both parents work.

Since the Education Improvement Program opened a nursery for deprived two-year-olds at Durham's Pearson School, the scene has changed. This youngster, along with eight others from the city's worst ghetto area, now spends a good share of each day in a well-equipped classroom where windows abound.

The Nursery's population was chosen randomly from those two-year-old children living within the poverty area. Twelve youngsters were selected; parental consent was obtained for nine. (Of the three refusals, two cases involved separation problems on the part of mother or child. The parents of the third child were not located.) The children ranged in age at school's opening from two years, five months to three years, five months. Four boys and five girls comprise the group.

Three or four visits were made to each youngster's home by EIP social workers. These visits yielded both information concerning the family and the child and an opportunity to interpret the program to parents.

The school opened in mid-April, six frustrating months behind schedule. Delays resulted from problems in obtaining building permits and in transportation and construction of the pre-fabricated unit now located near the public school.

The unit contains one large (23′ x 30′) classroom, a bathroom with laundry and changing facilities, and a cloakroom. Storage cabinets along one side of the room offer ample cupboard space for teaching supplies, toys, reference books and a bin for sports equipment. Two child-size sinks and a drinking fountain encourage independence in body care.

The classroom has been subdivided into activity areas by eight-foot-long storage shelves of window height. Readily moveable on casters, these units encourage flexible use of floor space. A quiet corner suitable for testing is shielded by children's locker units. The remaining open space in the room's center serves as a site for large group activities such as music, rest period, dramatization, and sensory-motor development.

A day's program may be logically divided into the following activities:

Story Time—Children hear stories read aloud and look at pictures in books on display shelves. Youngsters often act out their favorite stories. Some simple teacher-made scrapbooks are frequently carried home.

Music Time—Several times during the day children hear records, sing songs, learn finger plays, or play their musical instruments along with a record, often marching in time to the music. These activities play an important role in the development of such skills as rhythm, body control, creative or imaginative play, the fundamentals of body movement (e.g. qualities of direction, weight and time), as well as provide a media for language building and the development of listening skills.

Quiet Time—Children rest on canvas cots with their own blankets while quiet music is played.

Meal Time—Both snack and lunch are supplied by the school cafeteria. Food is brought to the classroom in containers and served there. Emphasis is upon eating and health habits.

Academic Activities—Included in this portion of the program are those activities designed to aid conceptual development and fine motor control.

The academic corner contains table and chairs, book shelves, chart stands, black board, magnetic and flannel

boards and a tape recorder. Table activities include wooden puzzles, peg boards, tinker toys, beads, various construction toys and parquet blocks, all of which help to develop number and shape recognition, reading-readiness and language development. The children have an opportunity to use this equipment during free play as well as in planned group activities.

Materials are introduced gradually, in keeping with the child's ability to manipulate them meaningfully. By working with small groups (three or four children) teachers can present tasks at a level appropriate to the individual youngster, making it possible for him to experience the success needed to build a positive image of self. When the child has experienced success, more complex activities are suggested.

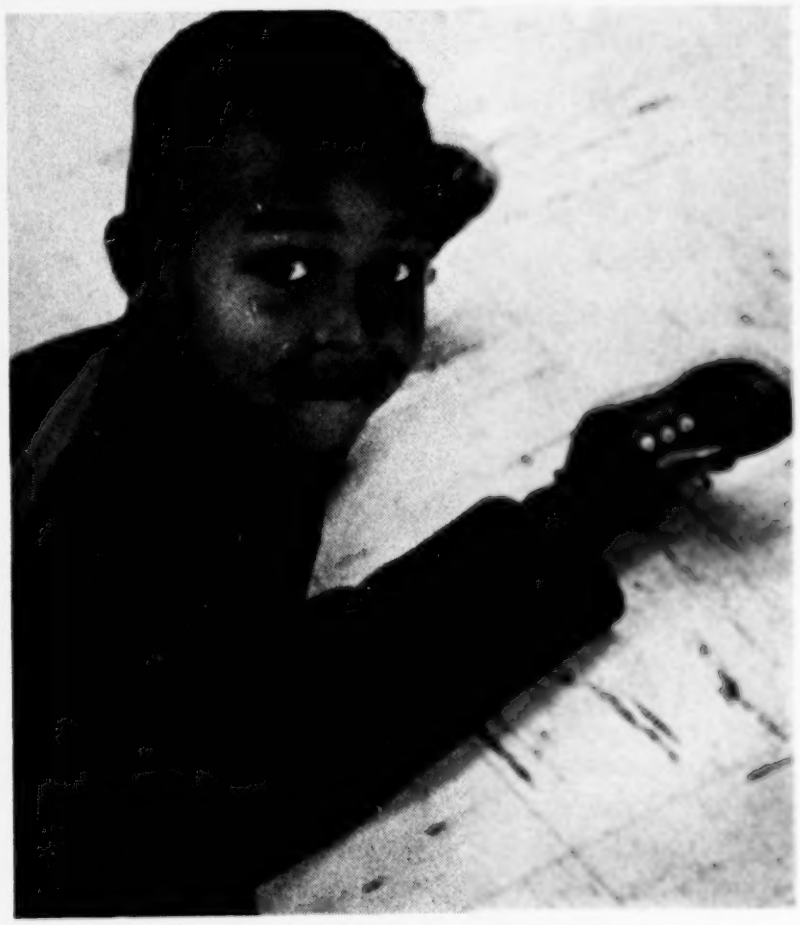
Experiences related to physical and natural sciences are encouraged in the science corner. Equipment available for this purpose includes an aquarium, a terrarium, magnets, glass and liquid prisms, View Master and nature slides, spring scale, turning fork, and bird feeder. A program of seasonal activities is planned, as well as the creation of an environment encouraging the child to learn through experimentation and manipulation.

Indoor Free Play—The doll corner is equipped for housekeeping and doll play, with child-size furniture and appliances such as table, chairs, sink, stove, and doll bed. It is popular with the children, at first for parallel play and more recently for dramatic play with peers. "Tea parties" typify kinds of play in this area permitting socialization with both adults and other children. Boys and girls mingle freely and equally.

The doll corner is valued because it offers an opportunity for self expression, for the discovery of new ideas and concepts, for sharing and helping, verbalization and development of a sense of responsibility, and order. At the same time, such dramatic play offers the child an opportunity to express negative feelings in an acceptable manner.

Property rights, and the idea of taking turns, represent problems with these children for, like many two-year-olds, they are possessive. Gradually, the children are helped to realize that the school equipment and toys are the property of the group as a whole.

Other free play equipment includes climbing-sliding apparatus, large and small blocks, rocking boat, trucks,



balance bench, bouncing tube, pair of stairs, sawhorse and board, and gym mats. This type of equipment is important in developing muscular strength and mobility as well as learning basic sensory-motor skills of balance, space awareness, body image, laterality and direction.

When this equipment is introduced, the children are given a chance to experiment and use it as they choose. Progress is evidenced by increased self-confidence, as well as improved performance by each child at his own level.

Outdoor Free Play—The two doors of the classroom unit open onto a fenced play yard. This area contains an asphalt walk linking the main school to the unit and a paved area for wheel toys. A swing, slide and climbing apparatus, as well as a sandbox and storage shed for wheel toys and other out-door equipment, are also available.

Field Trips—Field trips are planned to stimulate interest in community helpers and develop concepts.

Cooking Experiences—Preparation of food in the classroom, such as applesauce, butter, and popcorn, whets curiosity as well as appetite. Children enjoy finding out "how" and "why," as well as handling, smelling, and tasting the raw and finished products.

Special efforts have been made to observe the behavior of the children in the classroom. Notes are made of behavior in various activities and situations. Adult attention is offered in return for approved behavior. At present, only verbal approval has been shown when desirable behavior appears. Later food will be introduced, along with verbalization, to strengthen the teacher's role as a positive reinforcer. Reinforcements will be used at rest time, during hand washing before lunch, and at toileting.

As in other EIP classrooms, an inexpensive Polaroid camera is frequently used to document a child's accomplishments. Snapshots are carried home to be shared with parents.

In summary, the goals of this program in early childhood education might be stated as follows:

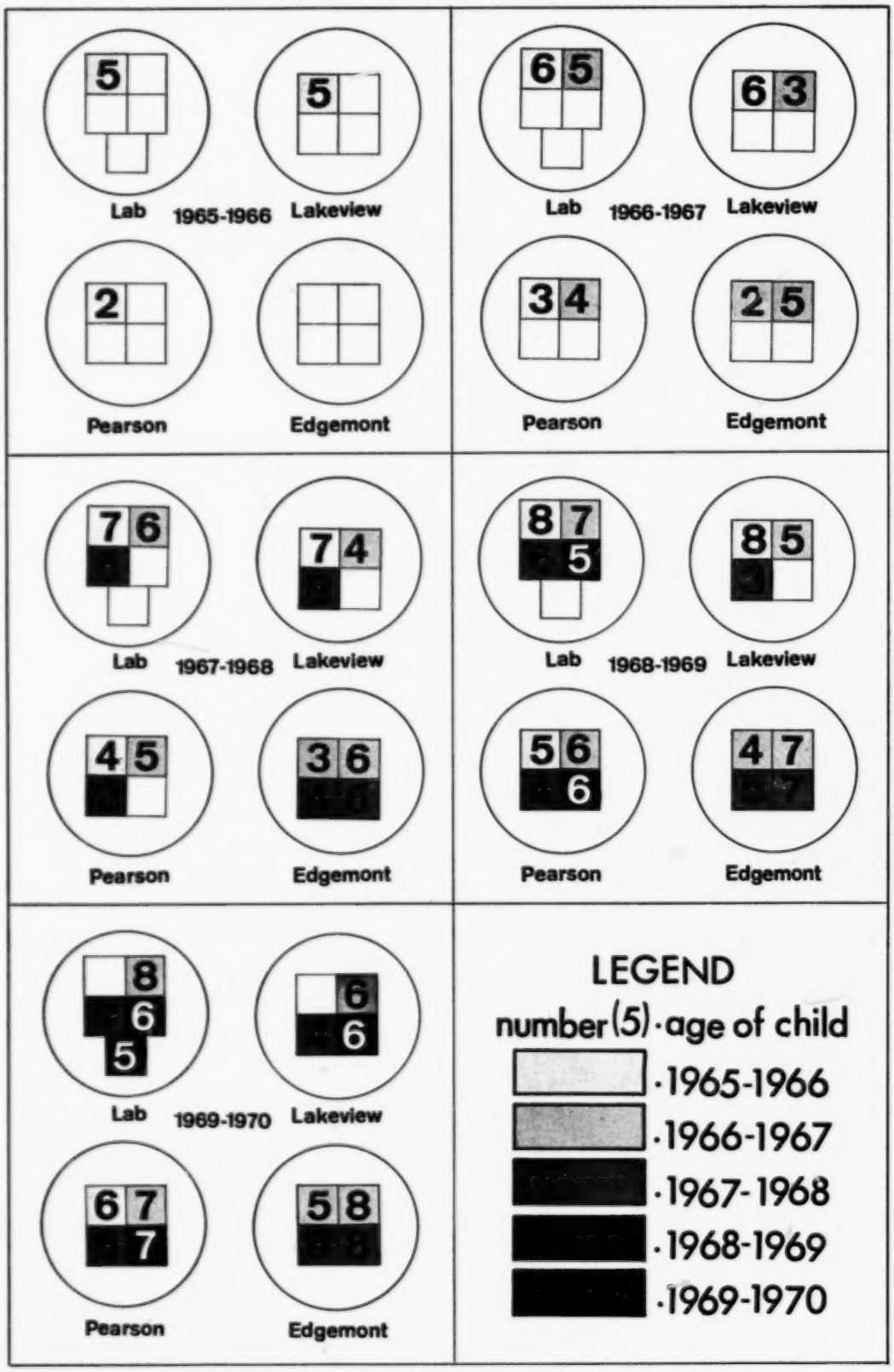
To help each child achieve an awareness of himself as a person capable of relating to peers and adults and verbalizing his wants and needs.

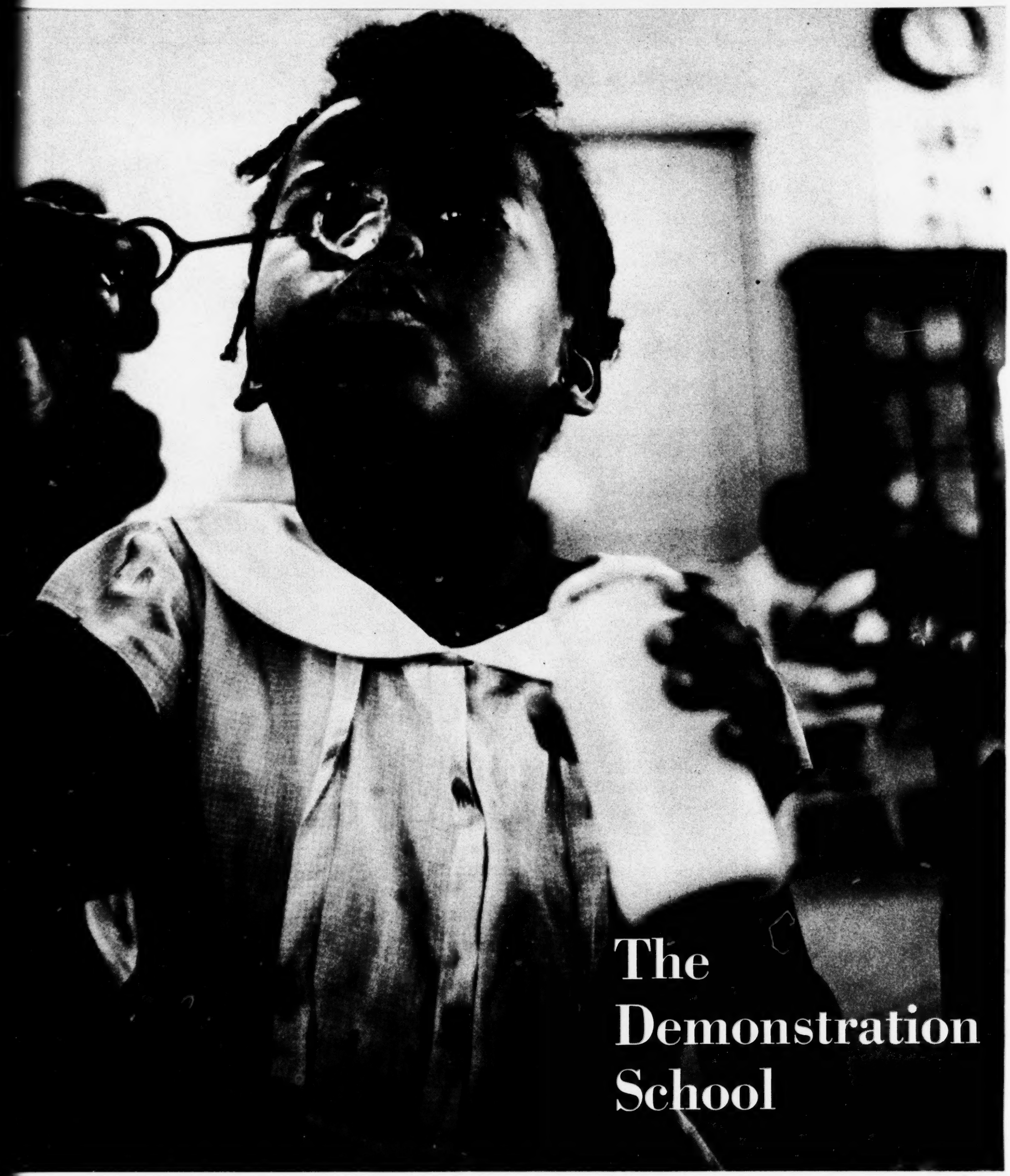
To introduce and stimulate interest in basic skills such as reading and mathematics readiness.

To promote physical development through the use of small and large apparatus.

To promote sound health habits.

PHASING CHART





The Demonstration School

The Southside Demonstration School has, by design, a unique population. In August and September, 1965, several teachers surveyed the Southside area in order to obtain a census of children of eligible age. From this list, a "random" selection was made of those children who came from the lowest income families based on Warner's Scale of Occupational Status. A 2 to 1 ratio of white to Negro children was designated to conform to the current pattern of integration in the school.

The Demonstration School facilities presently consist of two adjoining classrooms and a fenced-in playground equipped with swings and a slide. The staff includes two trained teachers, a secretary, a part-time undergraduate who assists with woodworking and physical education activities, and two curriculum specialists, one in language arts and one in science.

The two teachers were trained in the use and application of the Coping Analysis Schedule for Educational Settings (CASES) before they began teaching. They attended weekly curriculum meetings during which educational theories, suggestions, and problems were discussed. Many consultants, such as Dr. Nancy Bayley, Dr. Caleb Gattegno, and Dr. Susan Gray, observed and met with the teachers during their visits to EIP. A two-week workshop, emphasizing reading through *Words In Color,* was conducted by Dr. Dorothea Hinman.

Numerous conferences with the director were held to discuss current happenings in the school and plans for the future. In addition, weekly meetings were held with the social workers and school psychologist to discuss case studies and specific problems of individual children.

The following were the major goals the teachers set for themselves this past year:

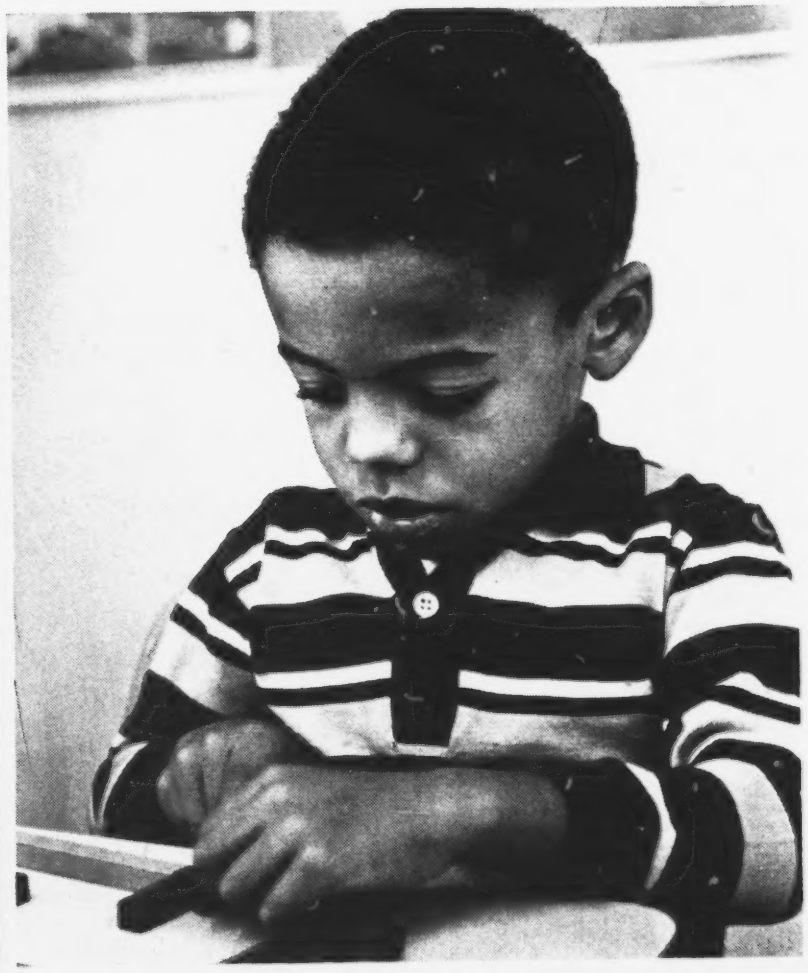
- Provide conditions conducive to understanding and accepting one's self and others.
- Provide informative and developmental experiences through observing, exploring, and questioning the environment.
- Emphasize those activities that lead to development of concepts that will enable children to master symbolic representation of the world about them.
- Provide social and group experiences which incorporate responsible action with recognition of the rights and privileges of others.
- Assist the children in developing internalized controls through the application of behavior modification based upon principles of social learning theory.
- Provide a variety of activities to develop and improve sensory-motor coordination.

The teachers helped the children acquire appropriate behavior for independent and interpersonal activities using behavior modification techniques. Applying principles from social learning theory, the teachers systematically presented and withheld verbal and concrete rewards. A detailed case study was begun during which one teacher, as a reinforcer, attempted to modify the aggressive, disruptive behavior of a hyperactive boy by the application of these principles. The unexpected relocation of his family outside the Durham area prematurely ended this pilot study.

The teachers, using these methods, have observed positive changes in the behavior of all the children in the Southside demonstration class.

Whenever possible and appropriate, the various areas of the curriculum have emphasized inductive teaching methods ("discovery" pedagogy) and logical thought processes. This first year, with a few exceptions (e.g., *Words in Color* and Cuisenaire Rods), the teachers and curriculum specialists designed and developed the materials used in the subject areas described below.

Reading was taught using *Words in Color,* an approach developed by Dr. Caleb Gattegno. This method enables the learner to become aware of speech sounds and related symbols and to use them in increasingly complex patterns. The children learn eventually to associate the symbolic representations (letters of the alphabet) of forty-seven sounds of English with specific colors, each sound being represented by a different shade. Color assists by allowing the learner to view our nonphonetic language as a phonetic language without changing the traditional



spellings in the initial introduction of words on the chart. The children use black lead pencils and white paper to reproduce the sounds and to combine them into words and sentences. *Words In Color* readers are printed in black and white type so that the learner is not dependent on color. Supplementary activities for providing readiness skills were adapted from the Kit-A-Language and the Peabody Language Development Kits.

The language specialist has created a program designed to develop and modify the spoken language of deprived preschool children. The major emphasis of the program is on those aspects of English structure which are crucial to cognitive growth, as well as basic to standard English. The assumption is that certain language forms are facilitative of concepts that deprived children are slow to develop and, therefore, incorporation of these forms into their languages would greatly enhance their intellectual growth. Furthermore, the more familiar a child is with basic standard forms in his own speech, the easier it will be for him to derive meaning from the printed word when he begins to read.

The first sequence of lessons attempts to elicit the use of particular sentence patterns, modifers, tenses, plurals, pronouns, etc., through games and activities which encourage the child to verbalize his own performances and observations. The lessons are designed for groups of five to ten children and are written in lesson plan form so that the teacher may readily carry out the program without further external resources. The lessons make use of stimulating materials found in the kindergarten such as tape recorders, puppets, and toy objects, and, in addition, use sets of pictures and games created and compiled by the language specialist.

The language program is modified as it is observed in the Demonstration School and a language manual should be ready for use in target area schools by the next school year.

Exploration in the mathematics curriculum has emphasized the development of logical thought processes through activities such as classification of a variety of objects, multiplication of classes, and seriation. Number concepts proceeding from concrete to abstract symbolic thought were explored through the Cuisenaire Rods.

The science curriculum included discussions, as well as first hand manipulative experiences centered on such topics as seasonal changes, personal hygiene, nutrition, and plant and animal life.

Art was integrated in the daily schedule as an independent, as well as group activity, through the presentation of a variety of materials for experiment. Music, included in the daily schedule, varied from group singing to the directed use of musical instruments and other rhythmic activities.

Physical education, emphasizing the development of gross motor skills, was taught using such equipment as gym mats, hoops, balls, ropes, climbing apparatus and balance beams, as well as tricycles and other wheeled toys. A special program of physical development was prepared in daily lesson form by an EIP teacher. After trial, use, and revision, it will be made available for general distribution.

EIP social workers kept the teachers informed of parental attitudes and changes in the homes of each of the children. The teacher, in turn, informed the social workers about the progress of each child and sought their advice about specific problems that occurred.

The local community action program cooperated with EIP by furnishing transportation for those children attending the demonstration class who were not living within walking distance of the school and were unable to provide their own transportation. It also supplied personnel from the Neighborhood Youth Corps program.

Educators, students, and interested members of the community were encouraged to observe the Demonstration School. This first year, visitors to the school averaged fifteen per week. Fortunately, this flow of visitors was not disruptive to the children because visitors were commonplace from the first day of school onward.

The Lakeview Preschool

The Lakeview Preschool is attended by a group of children from a rural Negro community surrounding Lakeview School in Durham County. The community has been designated a "Target Area" by Operation Breakthrough, Durham's Community Action Program.

The community was canvassed by Operation Breakthrough and EIP personnel and a list was compiled of all available preschool children. From this list 20 five-year-old children—ten boys and ten girls—were randomly selected.

The EIP facility consisted of one large classroom, a connecting toilet, and a play area. In addition, the kindergarten used the gym, cafeteria, and library facilities of the public school's modern building.

The preschool staff included two teachers, both trained in nursery school and kindergarten education, and a Neighborhood Youth Corps worker. The male aide performed non-teaching tasks such as collecting lunch money, preparing equipment, cleaning up, and supervising free play activities.

At the beginning of the year, Lakeview EIP teachers set the following goals for themselves:

- To help the children become more at ease socially.
- To promote physical growth and health habits.
- To promote muscular control through proper physical education.
- To teach basic reading readiness skills in preparation for first grade entrance.
- To help each child create a good self-image.
- To give each child an opportunity for creative expression.
- To increase emotional stability, control, and proper channeling of energy.
- To help the children experience success.
- To provide enjoyable experiences.

Traditional kindergarten methods were modified to meet the needs of this particular group of children. For example, verbal reinforcement for performance of desired behavior was emphasized greatly in the hope that the children would maintain newly learned patterns of behavior. Also, all academic activities included an abundance of visual and manipulative stimuli to hold the attention of the children.

The teachers made it a practice to utilize consistently the following techniques:

1. Giving directions in a positive rather than negative manner.
2. Redirecting attention from undesirable behavior to acts which hold equal interest and provide tensional release.

3. Giving a minimum amount of help in order to foster growth in independence.
4. Scheduling the daily program in a pattern of alternating active-quiet activities.
5. Selecting homogeneous groups of children for particular academic activities.
6. Unifying topics whenever and wherever possible.
7. Providing total group activities in preparation for larger grouping of children in first grade.
8. Using another child rather than the teacher as a model whenever possible.
9. Reinforcing desired behavior with a concrete reward.

The curriculum evolved as teachers prepared learning experiences based upon discovered gaps in the children's knowledge.

Tests and observations revealed that the children had distinct problems in speech-sound discrimination ability, a restricted vocabulary, and an underdeveloped ability to communicate verbally. Lessons to help children with their articulatory and auditory problems were planned by a reading and a speech specialist. Concepts of special relationships were taught through games which emphasized these concepts, and many other language enrichment experiences were provided.

Kindergarten art activities, such as easel painting, finger painting, crayon drawing, etc., revealed that the children did not know the names of basic colors and could not recognize them. Color concepts were informally taught along with teacher directed art activities, bulletin

board displays, and the observation of colored objects in the environment.

Much of the curriculum followed the pattern of a regular kindergarten program. Reading, writing, and number readiness activities were included. The children were exposed to time concepts, equipment for development of large and small muscles, arts and crafts activities, health and safety discussions and practices, musical and rhythm experiences, and science and social science instruction. Body image (names and location of parts of the body) and laterality (right and left) were also taught.

Two trips were taken during the school term—one to a pet shop and one to a puppet show.

Cuisenaire rods were used in the teaching of number concepts. The sensory-motor skills were taught from a manual developed by an EIP teacher.

EIP teachers were provided with the services of social workers. The teachers referred children who presented social and emotional problems in the classroom to the social workers for case studies. From these case studies information helpful in analyzing the behavior of the children and in establishing programs for behavior modification were obtained.

In-service training for Lakeview teachers was the same as for Demonstration School teachers. Weekly case study meetings focusing on the problems of a single child alternated between Lakeview and Southside schools for their subject matter. Curriculum meetings attended by all staff members were held weekly.

The Ungraded Primary

In September, 1966, the first two ungraded primaries under EIP's aegis will be instituted. EIP children in kindergarten classes at the Southside and the Lakeview schools during 1965-66 will be joined by a number of newly enrolled six-year-olds in a program of instruction designed to engage each child at his particular level of social and conceptual development.

Through consultation with the City and County School personnel, two interested and competent teachers have been selected to participate in these first two pilot classes. Two EIP teachers will also be present in each ungraded primary to establish a team approach. A Neighborhood Youth Corps worker will assist in non-technical tasks.

The ungraded classes will demonstrate the applicability of interage grouping and discovery pedagogy within a structured environment. Carefully articulated programs will be presented in reading, mathematics, language, science, and social studies. In addition, children will have an opportunity to use a variety of materials and create their own representations of reality and/or fantasy.

Through the use of music and song, the language and thought of these first graders will be extended and shared. Not only will there be opportunity to write, paint, draw, and create through other media but there will be an opportunity for these youngsters to participate in a structuring and restructuring of the classroom environment. During the current year some modular units have been designed which children and teachers can move about to create instructional centers and a variety of dramatic play settings. The ungraded program will benefit from the environmental flexibility these units will provide.

One of the newer ways of involving these children in productive effort will be the use of a variety of tools by which they can mold and construct new realities. The concrete world is much more understandable when a child has long participated in the reconstruction of his physical surroundings. EIP teachers will be cooperating with the Southern Association of Colleges and Schools in maximizing the promise of "tool technology."

Through the careful structuring of each child's encounter with symbolic representations of sounds, shapes, objects, and ideas the children will learn to master the reading of English and the Arabic system of numbers. Not only will they comprehend counting and ordinal relationships, but they will be able to handle elementary equations and fractions.

By far the most impressive of their accomplishments will be their ability to utilize time and space with self-control, all the while engaged in continual educational advancement. By the end of the second year of the ungraded primary these disadvantaged children should no longer resemble their peers in conventional classes. They can be expected to plan and carry out their own programs of study and participate in a wide variety of specialized activities with full and responsible control over their own behavior. These are the promises of the ungraded EIP classes.

Liaison

During the first year of the project it has not been possible to develop an extensive model for others to view. Even though a large number of persons have visited EIP classrooms and infant evaluations, the project can hardly offer at this point a well functioning system of educational intervention.

Instead, the first year has presented a model of an extensive program getting underway and coping with a number of continuing and vexing problems in education. EIP is administered by Duke University but operates not only on the Duke campus but within the City and County schools. In addition, it is closely associated with Operation Breakthrough and North Carolina College. These various relationships form a unique pattern of administrative lines and responsibilities which require constant attention.

During the first year a school psychologist attached to EIP has acted in a liaison role to interpret to key school and community agents the hypotheses to be examined and the experimental programs underway.

The EIP school psychologist has been employed on a half-time basis in the City schools during the latter part of the academic year and has assisted in the further development of cooperative programs. Through these and other joint relationships, programs developed by the City and County schools with Federal funds have benefitted from EIP experience. Further joint efforts are expected to develop over the coming years.

The Summer Program

Kindergarten youngsters from Lakeview and Southside schools have the opportunity to attend a summer day camp program operated by the Durham City Recreation Department in cooperation with the Education Improvement Program. Otherwise, these youngsters might have enrolled in Operation Headstart classes.

Children will be bussed from pick-up points within their home communities. The camp program also offers an opportunity for training research assistants and teachers in the use of the Coping Analysis Schedule (CASES).

Future Parent Program

As an arm of the Education Improvement Program, the Future Parent Program is designed to intervene before birth in the lives of children of the poor.

The Future Parent Program has a threefold responsibility:

- To promote activities likely to strengthen and unify family relationships and family life.
- To find ways to contribute effectively to the amelioration of social conditions contributing to the cycle of poverty which so completely undermines the basic foundations of healthy family life.
- To stimulate, by providing knowledge and appropriate supports, the desire for higher standards of living and more responsible roles within the family and community.

During its first year of operation the Future Parent Program will serve approximately 40 teenagers residing in a geographical area served by Durham's Whitted and Holton junior high schools. During its projected four year life, it will move gradually into other city and county poverty areas with a wide variety of educational offerings and services.

The Future Parent Program will focus upon three broad areas: family life education, consumer education and vocational choice and preparation. Activities will be geared to the interests and desires of participants, as expressed by them.

Although the ultimate goals of the program are strengthening the female role as mother and homemaker and the male role as "breadwinner," a high degree of flexibility will be maintained.

Although the Future Parent Program will have a strong action orientation, research will play an important role in documenting existing situations and evaluating the effectiveness of change producing techniques.

Initially, Future Parent Program staff will consist of a director, counselor, secretary, home economist, and social worker. The staff will function almost entirely in the poverty areas. The physical facility will be centrally located and will avoid projecting an institutional atmosphere. In addition to office space it will include ample space for holding classes, programs, informal meetings, and other activities.

A conscious effort will be made to meet these young people where they are at the moment in feelings, attitude, outlook upon life and community status, both real and imagined.

HOWARD LEE, *Director*

While the primary role of the Future Parent Program will be preparation of young people for parenthood roles, the program must also be ready to provide services enabling en-

rollees to enjoy maximum involvement. "Roadblocks" to effective participation may include inability to relate to adults, shyness, lack of proper clothing, and lack of child care arrangements. Any problem hindering the continued involvement of the enrollee becomes an appropriate concern for the program. A miserably unhappy youngster is not likely to give responsible thought to tomorrow.

The program will utilize schools, churches, and existing community organizations in its effort to establish communication with target area youth. However, the bulk of staff effort will go toward establishment of one-to-one relationships between staff members and potential clients. Particularly during the recruitment phase, individuals are expected to require an unusually high degree of support. Through such relationships participants can be helped to understand that the program seeks to work with them, not simply *for* them. While a variety of "aggressive" approaches will be used to stimulate the interest of young people in the Future Parent Program, the final right of the individual to remain uninvolved is recognized.

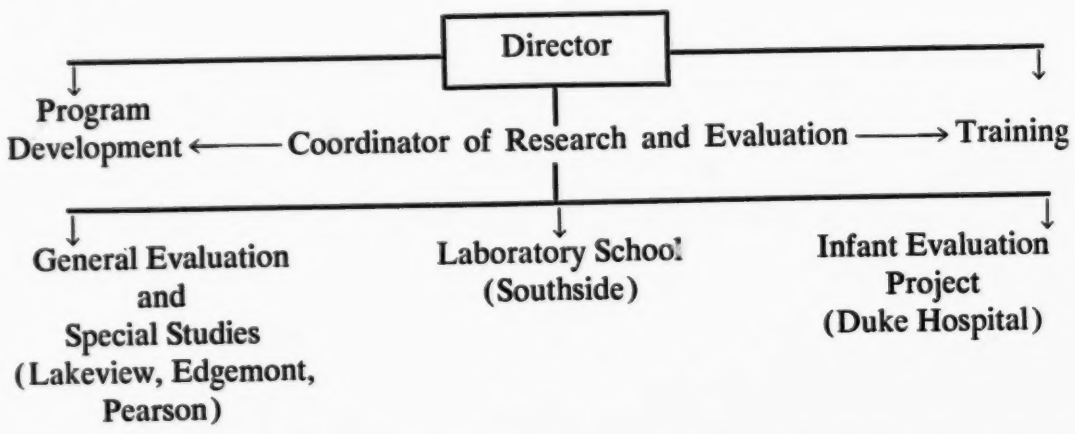
Since the target areas include two all-Negro communities (one rural and one urban), and since family disintegration is typical of the ghetto, many program enrollees will be Negro; however, every effort will be made to make the program accessible to individuals of all groups.

The overall orientation of the Future Parent Program will parallel that of the rest of the Education Improvement Program—an expressed belief in the value and dignity of each human individual and in his potential for growth.

DR. DONALD J. STEDMAN, *Director*

Research and Evaluation

Research constitutes a major thrust of the overall Education Improvement Program. From the outset of EIP, every effort has been made to combine research and evaluation with all the other components and activities of the Program. The basic research and evaluation approach is neither a traditional one nor a totally unique one. The Research and Evaluation component provides: (1) *a method* of characterizing the research population and the program's impact on that population, (2) *a vehicle* for developing and carrying out special studies on the how and why of learning and development posed in EIP philosophy, (3) *a system* for monitoring operations of EIP and (4) *a source* of feedback of data, accumulated by subjective experience, case study or objective experiment, to the program aspects of EIP. The Research and Evaluation component is an integral part of program development and training in EIP, not a remote watchdog and data collector that will report on the Program after the five year period. This is our version of an action-research model.



In the beginning, the Research and Evaluation component of EIP included three major sections. These were: (1) the laboratory school, (2) the Infant Evaluation Project and (3) the general evaluation and special study section, including the classroom groups in the three target areas. Essentially, the same grouping remains but first year emphasis has been on the Infant Evaluation Project, the two kindergarten (5 year old) groups (one at the lab school), the Nursery, and the development of an evaluation team for "benchmarking" the progress of the classroom groups thus far established.

The Infant Project, covered more extensively in another part of this report, has recruited 36 infants at

· Observation

30 days of age for participation in a 24-month long longitudinal study of growth and development. Nine highly trained individuals supported by two administrative staff man this project.

The Evaluation Team, consisting of six trained personnel, has completed individual evaluations on each of the kindergarten and nursery children. The 35 children evaluated at the outset of Program Year I, ranged in age from 5 years, 0 months to 5 years, 11 months; in IQ from 71 to 110. Families range in size from 4 to 13. The children rank in order of birth in their own family from first born to ninth. The average birth position is third. The 35 children have 134 brothers and sisters. There are 16 boys and 19 girls in these kindergarten groups. The nine Nursery group children are between 2 and 3 years of age. All are Negro children from disadvantaged homes in the Pearson school district. In addition, the Evaluation Team has evaluated the local Durham Headstart 1965 program, including a Spring, 1966, follow-up. The team has assisted in small study data gathering and spent considerable time orienting to the classroom program and teacher training effort. Additional effort has been spent in working out the semi-annual evaluation batteries for use in "benchmark" studies.

The Laboratory School concept has emerged gradually from the beginning set of classroom groups. More effort has been spent on space and equipment problems in the lab school system (Southside) and it is significantly different from other schools. A special study system with the Lab School has not, as yet, been fully developed. Some pilot studies have been accomplished, however, and the proximity of Southside to Duke has resulted in greater emphasis on that school by way of observation, controlled study, and prototype teacher training.

Research assistants are assigned for work within and between EIP sections and are employed in special short term studies in various research areas as well as marshalled for major efforts at "benchmark evaluation" time (September-October and April-May). There is still a shortage of trained, full-time research assistants in the project, particularly for the general evaluation team.

Considering space, equipment, and recruiting problems, the Research and Evaluation operations have gone well. There has been insufficient documentation of operations and studies thus far, but incoming staff at the top should reduce administration pressures on the Director and Research Coordinator allowing increased research activity and generation of studies.

The research and evaluation plans and activities within EIP are coordinated by a single person in conjunction with the Director and other component heads. These plans and activities include not only studies planned and ongoing in the three major sections, but research and/or evaluation activities in other components (e.g., Social Work Program, Future Parent Program, Teacher Training, Educational Program development). In addition, methodological, statistical, data storage, and special study write-up problems are concerns of the Coordinator of Research and Evaluation. Adequate consultative supports in these problems are available from the University and frequent visiting consultants.

The sections are nearly autonomous. The Infant Project is directed by the Coordinator of Research and Evaluation, the Laboratory School is primarily the responsibility of the Director (during 1965-66), and the evaluation team is headed by the chief research assistant. Each section, however, is fluid enough to merge with others to "beef up" for special studies or to "lean out" for short term attachment to several

other components at the same time. (For example, the team has been split to assist the social work component in recruiting children for classes, to aid the school psychologist with her consultation work, and to engage in training on coping schedules; all simultaneously.)

The work of EIP can only be fully appreciated by direct interaction with its everyday activities. The components and their sections are barely discernible. Leadership has been maintained in a highly unstructured situation which fosters creative productivity while requiring initiative in each of its workers.

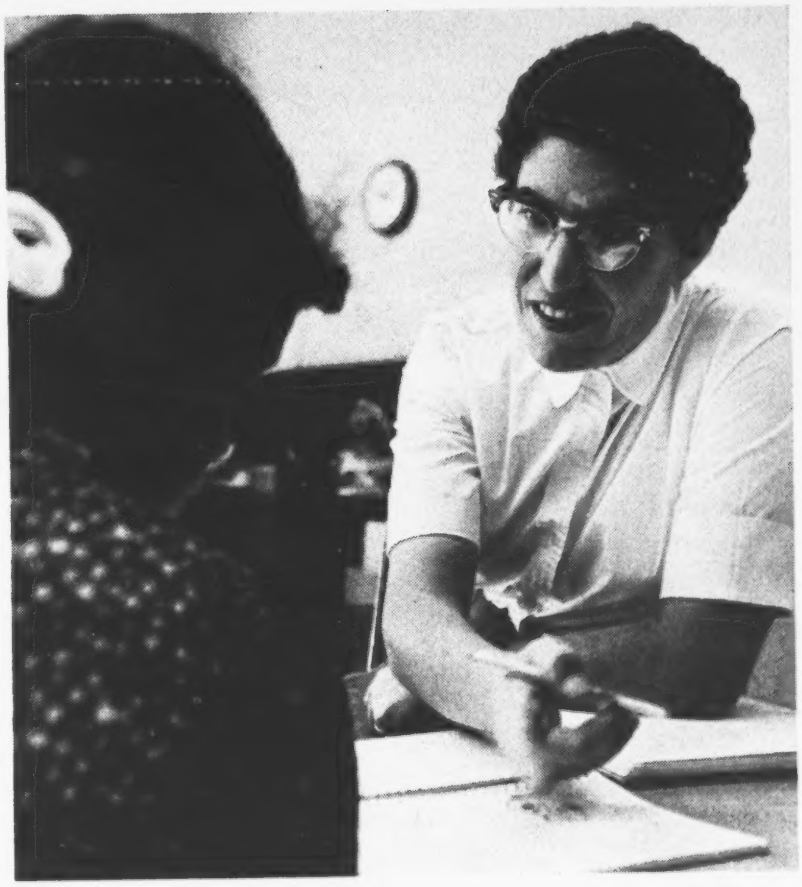
A beginning system of operation has been worked out whereby longitudinal and short term studies can be done. Systematic, traditional assessment is abundantly supplemented by studies of process, and data will be gathered and treated sufficiently to characterize the population and test hypotheses about it.

There are plans for sufficient quantities and kinds of personnel assigned to Research and Evaluation to guarantee adequate levels of emphasis.

Current plans call for:

1. Additional training of presently employed research assistants and deployment to smaller, special projects throughout 1966-67.
2. The development of a mobile research laboratory with video-tape recording capability to enhance the Research and Evaluation effort.
3. Special workshops on testing and evaluation and seminars on methodology and data gathering to sharpen research skills.
4. Social research in the Future Parent Program to bring a wider scope to Research and Evaluation activities.
5. Experimental studies in infant behavior leading to the development of intervention techniques.
6. Classroom analysis and teacher/child studies to provide greater information on social and cognitive behavior.
7. Analysis of the model system, itself, during Program Year II.

All these, and many more Research and Evaluation activities, are part of plans for the near future. Much consolidation and streamlining remains to be done. Many new avenues of study and increasing numbers of children to evaluate and study will comprise a major part of Research and Evaluation work during 1966-67.



Major Family Problems

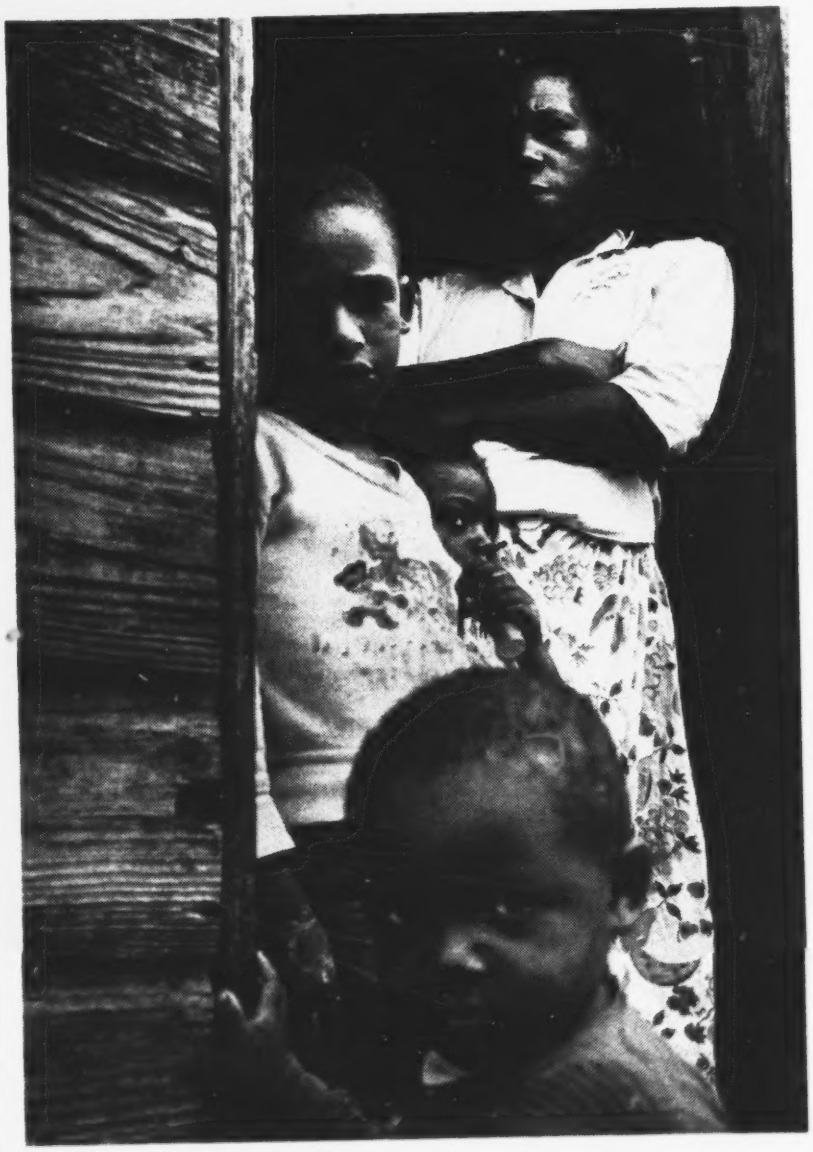
	LAKEVIEW FAMILIES	SOUTHSIDE FAMILIES	PEARSON FAMILIES	ALL FAMILIES
MPE	5	4	0	9
IFR	3	6	1	10
Ed.S.	10	6	8	24
No code	1	0	0	1
Totals	19	16	9	44

The above chart indicates social workers' evaluation of major family problems around which interventions are indicated. The following codes were used:

1. MPE: Multiple problems of economic and social nature.
2. IFR: Interpersonal relationship problems or intra-family difficulties.
3. Ed.S: Main need around support to emphasis on educational goals in child-rearing practices.

	SOUTHSIDE FAMILIES (Demonstration School)	LAKEVIEW FAMILIES (Target C)	PEARSON FAMILIES (Target A)	LOW POVERTY FAMILIES	ALL FAMILIES
Number	16	19	9	27	44
Mean of Warner M	4.6	5.2	5.3	5.4	4.5
Occupational Scale F	5.0	5.7	5.8	5.8	5.5
% of Nuclear Families	62.5	78.9	22.2	59.2	61.4
% of Extended Families	2.5	5.3	22.2	14.8	15.9
% of One-Parent Families[2]	12.5	15.8	55.6	25.9	22.0
% of Legitimate Fathers	100.0	94.7	55.6	88.9	88.6
Mdn. no. of Family Members	6.5	8.0	4.0	7.5	6.0
Mdn. Annual Income	$4176	$3380	$3840	$2880	$4003
Mdn. Education of Fathers	10.5	11.0	9.0	10.0	10.0
Mdn. Education of Mothers	10.5	11.0	10.5	10.0	10.0
% Who Own Homes	25.0[3]	63.3	0.0	29.6	36.4[3]
Mdn. Condition of Home Environment[4]	2.5	3.0	4.0	4.0	3.5

[1] The number of families below Federal subsistence guidelines (Dimensions of Poverty 1964, OEO).
[2] Due to death, separation, or unmarried to father.
[3] Data incomplete.
[4] Five-point Scale: 1 = very good, 2 = good, 3 = fair, 4 = poor, 5 = very poor.



Social Work Links Home & School

The role of the social work component in the Education Improvement Program focused upon relating the total program to EIP families. This has involved interpreting the program to parents, determining their attitudes and motivation, and sustaining their interest in the program.

The social work staff (composed of trained professionals with clinical experience) has faced the challenge of adapting a traditional social work model to meet many different kinds of needs. As a result, social work as practiced within the demonstration program has included school social work, family case work, educational supports, agency collaboration and consultation, broad social planning, and social action.

At year's end it is clear that several kinds of inter-

vention techniques are indicated, and these will be used selectively following a structured initial study of each family.

Social work involvement during the past year included the following:

- Survey and recruitment for the programs.
- School social work, both as service and demonstration.
- Consultation to EIP staff, community agencies, and school personnel.
- Accumulation, classification, and quantification of data about families.
- Responsibility to staff in making information and data available, and involvement in how to relate this to the child in terms of his school experience. (Vehicles, in this instance, were teacher and case study conferences.)
- Developing and maintaining relationships with community resources for general services to people as well as for specific resources.
- Specific responsibilities were assumed by the social work consultant for liaison with the community action program.

Social work has had its greatest involvement in direct casework services around a variety of problems. Although the great majority of the families were eager and able to have their children engaged in a preschool experience, there were a few who were reluctant to invest time and energy getting their children to school. Thus initial social work activity centered around helping with transportation and clothing in those families where the pressures of everyday living made it impossible for a mother to concern herself with educational opportunities. We were able to facilitate the practical aspects of the child's attending school and continued to support each family's efforts in this direction. Later this meant another focus—helping with some of the parent-child problems, interpretation of kindergarten procedures, and discussion of child-rearing practice.

A situation which combined all of these activities is illustrated in the following case history:

Little Betty came to the attention of social workers when they noticed that she was uncomfortable with sores and itching typical of impetigo. They had also observed that her general appearance—dirty face and unkempt hair and grossly inappropriate clothing—made her the butt of many jokes from her peers. She was able to express her discomfort to the teachers and attribute it to the fact that she did not have a mother to care for her at home.

Our study of the home revealed that the brickmason father, whose wife had died two years ago, was trying to provide shelter, food, and guidance to seven children in the home. One of the seven is severely retarded and could appropriately be institutionalized. Although the father is intelligent and hard-working, he was never adept at child care and was coping inadequately at this time.

The community action worker described a man quite angry with the community for many reasons: the Welfare Department had never followed through on his application to the Murdoch School for a retarded child; no one had offered him anything positive in connection with truancy of the older boys. Instead, he had endured a steady stream of visitors who seemed unable to bring about anything which might improve the home situation.

The home itself was filthy and dilapidated. In two bedrooms slept seven children belonging to Mr. W. Two other children (the illegitimate offspring of his older daughter) and Mr. W. himself brought the total to ten.

We began looking for ways to alleviate this family's problems. We had offered consultation to the community action program in developing Homemaker Service and that agency provided funds for a homemaker, with their home demonstration supervisor providing help in several aspects of homemaking. The EIP social worker handled some of the broader problems with the father and the homemaker, who went into this very difficult situation.

MRS. ROSEMARY FUNDERBURG,
Head School Social Worker

The children were able to divulge to the homemaker some of their feelings about growing up, school, and their relationships with their father and each other. Mr. W. appears less depressed and has managed to work with the homemaker in connection with providing money for food and household items. He has also begun to pay more attention to his daughters and some of their concerns as they enter adolescence.

The house still appears dilapidated—though a little cleaner—and plans have been made for a volunteer group to help Mr. W. with painting and otherwise improving the appearance of his home.

The retarded child has been successfully placed in the state school for the retarded.

As the result of many small changes in the home situation, our kindergartener is feeling a little more comfortable about herself as a person. She comes to school looking clean and neat and is able to relate more freely to other children.

Homemaker service is temporary. Hopefully community workers will be able to help Mr. W. to arrive at a budgeting system which will permit him to employ a homemaker of his own when the current woman's services are terminated. Perhaps he can then move into providing more stability, organization, and time for his children.

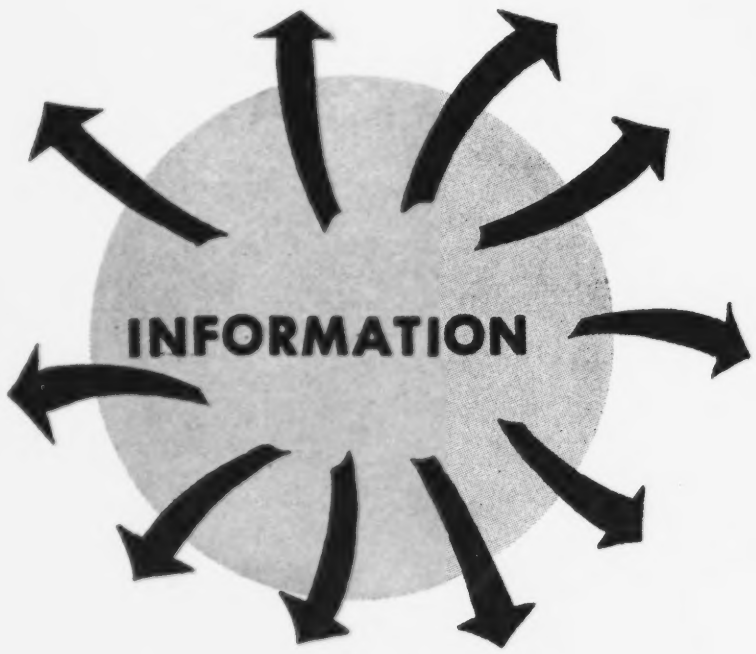
The W. family clearly demonstrates the characteristics of a multi-problem family—multiplicity and chronicity of problems and needs, handicapping attitudes, and resistance to change. In spite of this, the flexibility of the school social work role, in cooperation with local agencies, has permitted the family to realize some changes and move realistically towards still others.

The W. family, and some others, represent at least partial success stories. These people recognized problems but had lacked belief that they might find ways of coping with them.

On the other hand, some families exist who are fully aware that kindergarten is not compulsory and have resisted using the service—sometimes because of separation anxiety or, perhaps, because an ADC mother needs this youngster at home to help a little with the younger ones. Families like these are the hardest to reach. With the push of compulsory public school attendance, they may become more willing to face their problems when the first grade demands it.

We have learned this year that an early assessment of a child's family situation will be necessary if we are to provide the constructive social work intervention that is possible. A plan for each family who needs help will be designed, with some priority given a child's attendance at school. Next may come intervention by helping with behavior or dependency problems thwarting constructive use of the classroom experience.

The Information Program



The Information Office serves as an important communications link between the Durham Education Improvement Program and the many "publics" it serves. The long term goals of the Information Program are dual in nature: creation of a climate of understanding and support for preschool education and provision of active internal support for other program facets.

On behalf of the first goal, a constant effort was made to interpret the Education Improvement Program's first year to a number of potential audiences varying greatly in sophistication. Rejecting the traditional "hard sell" approach which injects masses of information indiscriminately into the community via mass media, the Information Program sought instead to define the characteristics and needs of specific audiences, then provided material relevant to their interests. Potential audiences for EIP information activities include professional educators and researchers across the nation, North Carolina school administrators and teachers, and cross-sections of both Caucasian and Negro middle and lower class communities, as well as parents of children now actually enrolled in the program. Levels of ability to receive and assimilate communicated information range from post-doctorate to functional illiterate.

MRS. JOAN FIRST, *Information Specialist*

Special emphasis was placed upon interpretation of EIP's program to regular public school faculty in schools containing demonstration classrooms. Non-EIP teachers were invited to tour program facilities and EIP staff members appeared before faculty groups to explain the program's sometimes untraditional approach to preschool education. Interpretive photographic bulletin boards will be used in many schools to narrow the distance between the EIP classrooms and regular school classrooms.

While information activities have deliberately placed little stress upon the mass media, news releases concerning staff appointments, visiting consultants of note, and special events were routinely provided to local newspapers. Photographs and feature materials were supplied to several magazines of broad readership, as well as one out-of-town newspaper.

A portable exhibit, planned to display photographs of EIP children, was recently designed. Photos were carefully selected to emphasize poverty environments

· Graphic Interpretations ·

hostile to learning and explain the articulated program EIP offers. The exhibit will be scheduled into local and regional meetings of public school teachers and placed in appropriate public places and teacher training facilities of this state's universities.

Candid photographs of EIP youngsters, some enlarged to nearly lifesize, are displayed as an important part of the information function and appeal of EIP's headquarters building. The photos were dry-mounted, then slipped into permanently installed frames on walls of all staff offices and corridors. A quick trip through the "EIP Gallery" gives visitors a capsule tour of the program. Guests respond warmly; staff members report the photos are instant morale boosters.

During the five-month period extending from January through May, 1966, about 65 visitors toured EIP classrooms and activities of the Infant Evaluation Project. Each visitor, or small group of guests, was guided through those areas of the program of greatest personal interest to him. Information staff members carried prime responsibility for making tour arrangements and offered a running interpretation of what was observed. During busy peaks, research and evaluation team members and the school psychologist pitched in to help.

All visitors to the program are routed through the information office, as are staff members wishing to observe portions of the program outside their usual bailiwicks. Benefits of this system are clear.

Typewritten itineraries are handed to visitors upon their arrival to the project. Included are scheduled visits to classrooms and the infant project; location and guest list for all planned meals; information about hotel or motel checkout times and airport limousine schedules, and a listing of EIP phone numbers.

Since many classroom activities last a half hour or less, information office personnel use detailed schedules of classroom routine in planning the most effective use of a given visitor's time.

The director and other staff members are spared time-consuming administrative details, freeing time actually spent with guests for discussion of relevant issues.

Teachers and observers in the classrooms appreciate the fact that visitors arrive in small groups, staggered among the various EIP schools to prevent a cumbersome build-up in any one classroom.

During the past year EIP staff members filled many requests to address lay and professional local groups. Next year slide shows utilizing a taped, synchronized narration will be used extensively before such groups. Backed by an EIP staff person ready to answer questions, these presentations will provide an inexpensive format for program interpretation while removing much of the burden of preparation from speakers.

Support to other program sections—particularly to the classroom teacher—are assigned high priority among information activities. Teachers have used slides and photographs showing children in warm, safe school relationships to allay parental anxiety and concretize vague aspects of the program. Polaroid cameras are used both in the Infant Project and in classrooms as a means of showing growth and learning on the part of the child.

Slides of youngsters taken in the school room elicited a warm response from kindergarten children, and besides offering a new experience with light and shadow, helped to communicate to each child an image of himself.

A twelve-page introductory brochure was designed and widely distributed. The brochure, in a companion folder

also containing staff-prepared working papers, is provided guests before classroom tours whenever possible.

Finally, the information staff devoted considerable effort to establishing a number of channels for communication of information among and between staff members.

- A series of in-service staff tours exposed all staff members to those EIP components outside his own specific area of interest.
- A monthly publication, "The EIPcress File," is supplemented by a calendar of coming events and a listing of new library books. These publications provide a sounding board for humor as well as a means of communicating developments to the entire staff.
- A retreat held at Quail Roost Farm Conference Center, Rougemont, North Carolina, in early March offered a unique opportunity for professional staff members to catch up on the program's rapid growth, as well as some welcome moments of shared relaxation.
- A series of bulletin boards interpreting anti-poverty activities and a series of seminars featuring representatives of other change-oriented agencies were two means selected to help create in staff members a sensitivity to the need for social change and an awareness of a pervasive "climate of change."

A special effort was made to open channels of communication with personnel of other change-oriented programs operating in the geographical area, including the North Carolina Fund, Operation Breakthrough (the local community action program), the Learning Institute of North Carolina (LINC), and other Education Improvement Programs located in the South.

· Publications ·

· EIP Tours ·

A series of working luncheons with Information Specialists representing these agencies offered a stimulating exchange of ideas and a sharing of diversified talents and equipment represented by the group.

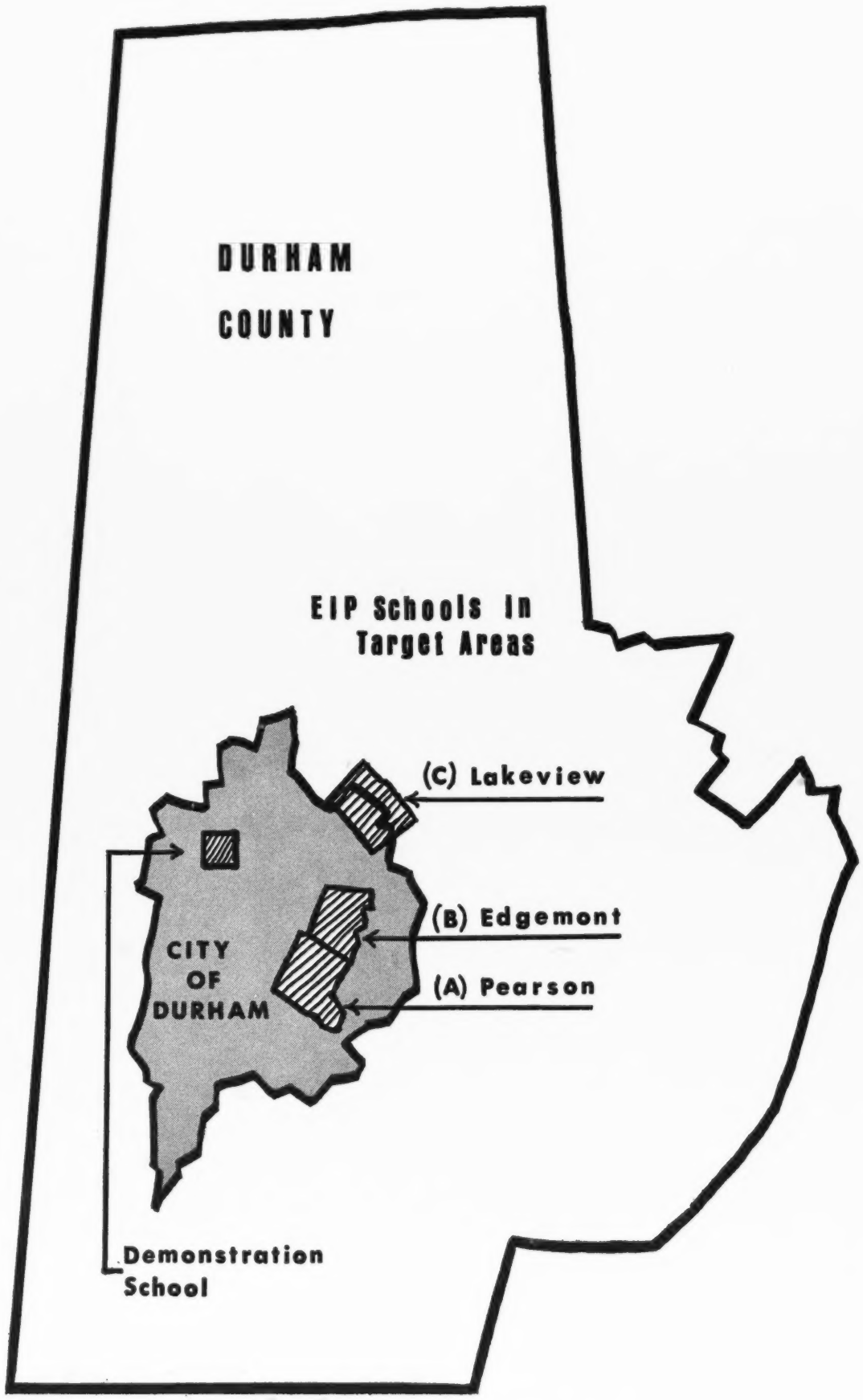
The Information Office has been staffed by three full-time persons since January: an information specialist, information assistant, and a clerk-typist. Consultation and direct services through loaned staff time were provided periodically by the Public Information Department of the North Carolina Fund. Dr. Arthur H. Rice, Jr., assistant executive director for public information of the Michigan Education Association, provided consultative services during December, 1965.

Information challenges during the coming year will include a search for relevant means of communicating with poverty area teenagers enrolled in the Future Parent Program and experimentation with printed media keyed to the interests of the low-income, unsophisticated adult audience formed by the parents of EIP youngsters.

Finally, there remains the important task of communicating research findings to professionals seeking proven methods of loosening the grip of poverty on the young.

1965-66 Consultants

Dr. Nancy Bayley Institute of Human Development University of California (Berkeley)	Child Development
Mr. Ralph Bohrson Ford Foundation	Education
Dr. David Brison Institute for Research on Exceptional Children University of Illinois	Educational Psychology
Dean Hobart Burns Hofstra University	Education
Dr. Paul Clifford Ford Foundation	Education
Dr. Norman Ellis Department of Psychology University of Alabama	Psychology
Dr. Caleb Gattegno Schools for the Future	Education
Dr. Herbert Goldstein Yeshiva University	Special Education
Dr. Susan Gray George Peabody College	Child Development and Preschool Education
Dr. Herbert Grossman Illinois State Pediatric Research Institute	Pediatric Neurology
Dr. Dorothea Hinman Schools for the Future	Education
Mr. James McDowell University of California (Davis)	Education
Dr. Harold Morine Hofstra University	Education
Dr. Arthur Rice, Jr. Michigan Education Association	Information
Dr. Harold Stinson Ford Foundation	Education


DURHAM
COUNTY
EIP Schools in
Target Areas
(C) Lakeview
(B) Edgemont
(A) Pearson
CITY
OF
DURHAM
Demonstration
School